

SCOPARIA MACROPHANES MEYRICK, 1888 (INSECTA,
LEPIDOPTERA, PYRALIDAE): REQUEST FOR SUPPRESSION
OF NEOTYPE DESIGNATION FOLLOWING REDISCOVERY OF
HOLOTYPE. Z.N.(S.) 1883

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Meyrick (1888 : 231) described *Scoparia macrophanes* from one female, presumably collected by the Rev. Thomas Blackburn in the Hawaiian Islands, but without more precise data. In the introduction to this paper Meyrick said: "I am indebted to the Rev. T. Blackburn for the material which forms the subject of this paper. He has been good enough to make over to me the bulk of the collection of Heterocera formed by him during six years' residence in the Hawaiian Islands. . . . Many of the species have, indeed, been described by Mr. A. G. Butler . . . I am bound to add that, after comparison of the named types in the British Museum with the descriptions drawn from them, I find the latter frequently so inaccurate that I am unable to reconcile the differences. I have therefore found it necessary to redescribe all species not sufficiently described elsewhere. Mr. Blackburn furnished me with no notes on any of the species . . .". The description of *S. macrophanes* is headed "♀" and concludes with the following note: "One specimen. *S. angustea* (*coarctata*), erroneously recorded by Butler, was identified either from this or the following species." The species that follows in Meyrick's paper is *Scoparia frigida* Butler (1881 : 231), with which Meyrick synonymized *Scoparia* [*coarctata* var.] *montana* Butler (1882 : 41). The latter synonymy is now rejected, and *frigida* and *montana* are regarded as distinct species.

2. Later Meyrick (1899 : 271-2) redescribed *Scoparia macrophanes* and referred two additional females to the species. These were collected at Haleakala, Maui, 5,000 ft., in May. He added: "The original type may probably be from the same locality."

3. Hampson (1897 : 233) synonymized *S. macrophanes* with *S. montana* Butler, which he, like subsequent workers, including Meyrick (1899 : 271), considered distinct from *S. frigida*.

4. Zimmerman (1958 : 225) referred *S. macrophanes* to *Scoparia bucolica* Meyrick (1899 : 263) as a subspecies and continued as follows:

"Meyrick (1888) did not designate as type the Butler example (collected by Blackburn) he used to describe *macrophanes*, and no Blackburn specimen is in either Meyrick's collection or the British Museum collection. The type, therefore, appears to be lost. In *Fauna Hawaiiensis*, Meyrick described *macrophanes* from two Perkins' specimens. One of these is in the British Museum drawer, and the other is in Meyrick's collection. I have designated the specimen in the British Museum collection as neotype; the example in the Meyrick collection is faded.

"Meyrick, in *Fauna Hawaiiensis*, said that the specimens he had had an expanse of 17 to 20 mm. My measurements indicate that his example, which does

not have the wings fully expanded, measures 18 mm.; the neotype is 21 mm. in expanse."

5. The neotype is depicted by an excellent half-tone reproduction of an enlarged photograph in Zimmerman's work (1958 : 228, fig. 180). The relevant part of the caption reads, "Figure 180—*Scoparia* . . . Center: Neotype of *bucolica macrophanes* (Meyrick); Haleakala, Maui, 5,000 ft.; expanse, 21 mm."

6. Mr. W. G. Tremewan's collation and my subsequent examination of Meyrick's *Scopariinae* (cf. Munroe, 1960) have shown, *inter alia*, that, in addition to the Haleakala specimen of *S. macrophanes* located by Dr. Zimmerman, there was in another part of Meyrick's collection a second specimen accompanied by a second name label "*macrophanes* Meyr.", also in Meyrick's hand, an exact duplicate of that accompanying the Haleakala specimen. This is a female, of 17 mm. expanse, precisely matching Meyrick's original description of *S. macrophanes*, and bearing Meyrick's label: "Hawaiian Is. TB./81" (See Fig. 1). Zimmerman referred to "the Butler example (collected by Blackburn) he [i.e. Meyrick] used to describe *macrophanes*" but the passages quoted above from Meyrick (1888) indicate rather strongly that the specimen was in Meyrick's own collection. As Meyrick cited only a single specimen, and expressed doubt as to the identity of Butler's "*coarctata*", that specimen is a holotype. Meyrick did not mark holotypes in his own collection, but there is no room for doubt that the Blackburn specimen mentioned above is in fact the holotype. I have so marked it, and it now bears the following labels in addition to those already cited: "*Scoparia macrophanes* Meyr. $\frac{1}{1}$ E. Meyrick det. in Meyrick Coll.", affixed by Mr. Tremewan; "Meyrick Coll. B.M. 1938-290.", accession label affixed by Mr. Tremewan; round white label, uninscribed, a label affixed by Mr. P. E. S. Whalley to identify British Museum property; "5130", a photograph number affixed by Mrs. Marie Spencer; and "HOLOTYPE ♀ *Scoparia macrophanes* Meyr." on red paper, and, on the reverse of the same label, "E. Munroe det. 1969".

7. Zimmerman's designation fulfils all the requirements laid down in the *International Code* (Stoll et al. 1964) and it accordingly takes effect from the date of its publication, as provided in Article 75(e). We are therefore dealing with a case of rediscovery of type-material after designation of a neotype, and the case must be referred to the Commission under Article 75(f).

8. Two courses are possible: either to set aside the neotype designation in favour of Meyrick's holotype, or to set aside the holotype in favour of Zimmerman's well-documented and clearly figured neotype. The taxonomy is relevant to this choice. In my opinion the neotype from Haleakala belongs to one species and both the holotype and the second Haleakala specimen belong to a different species. For purposes of discussion I will term these *macrophanes* Zimmerman and *macrophanes* Meyrick. As might be expected, *S. macrophanes* Meyrick agrees a little better with the original description than does *S. macrophanes* Zimmerman. I consider that only one name is available for these two species, and that both are specifically distinct from *S. bucolica*. No matter which type is recognized, the other species will have to be described as new. Both species are rare in collections. The total material of *macrophanes* Zimmerman consists of



two specimens: the neotype and another Maui specimen in the collection of the Hawaiian Sugar Planters' Association. The material of *macrophanes* Meyrick includes a total of five specimens: two Blackburn specimens from "Hawaiian Islands", the holotype of *macrophanes* and a specimen identified by Meyrick as *Scoparia demodes* (Meyrick) = *Xeroscopia demodes* Meyrick (1888 : 234); the Haleakala, Maui, specimen identified by Meyrick as *macrophanes* and already referred to above; and two specimens from Molakai, one a paratype of *Scoparia dactyliopa* Meyrick (1899 : 268) and the other identified by Meyrick as *S. dactyliopa*. No body of literature is affected. So far as I know the only references to the name since 1899 are Klima's bare listing (1937 : 41) in *Lepidoptera Catalogus* and Zimmerman's (1958) account already discussed.

9. Evidently no very significant question of stability or uniformity of nomenclature is involved, and I therefore advocate reinstatement of the holotype and invalidation of the neotype. A new species can then be described with the invalidated neotype of *S. macrophanes* as holotype. If the opposite course were followed, one would be faced with the somewhat awkward necessity of describing a new species from a type series containing the holotype of the name used for a different taxon. A counter-argument is provided by the fact that Zimmerman's neotype is designated and figured in his excellent *Insects of Hawaii*, at present the standard work on the Lepidoptera of the Hawaiian fauna, and that which will be consulted in the first instance by a majority of workers. This argument loses some of its force from the fact that the concept of *S. macrophanes* presented in *Insects of Hawaii* requires revision (at least in my opinion) regardless of nomenclature, and much more from the fact that my revision of Scopariinae, now in advanced preparation, will provide a more exhaustive and appreciably modified treatment of the Hawaiian species, with a number of name changes.

10. The International Commission on Zoological Nomenclature is therefore requested to take the following actions under Article 75(f):

- (1) to place the following specific name on the Official List of Specific Names in Zoology:
macrophanes Meyrick, 1888, as published in the binomen *Scoparia macrophanes*, with holotype, female, Hawaiian Islands, T. Blackburn, 1881, in the British Museum (Natural History).
- (2) to declare invalid the designation by Zimmerman (1958 : 225, 228) of a neotype for the nominal species *Scoparia macrophanes* Meyrick, 1888, by reason of subsequent rediscovery of the holotype and absence of significant contraindication to recognition of the latter.

Plate 17

Scoparia macrophanes Meyrick. Holotype, female, Hawaiian Islands, 1881, T. Blackburn, in British Museum (Natural History).

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